AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A lens system for a plurality of charged particle beams, comprising:

at least two lens modules, each comprising a first pole piece, a second pole piece and at least one opening for a charged particle beam; and

at least one excitation coil providing a magnetic flux to the at least two lens modules, wherein each lens module constitutes a component.

2. (Previously Presented) The lens system according to claim 1, wherein one charged particle beam travels through each of the openings, thereby being focused in a lens field area.

3. (Previously Presented) The lens system according to claim 1, wherein the center of each opening provides an optical axis and wherein a lens field corresponding to each opening has at least two planes of symmetry with respect to its optical axis.

4. (Previously Presented) The lens system according to claim 1, wherein the openings of all lens modules sharing one excitation coil form a row of openings.

5. (Previously Presented) The lens system according to claim 1, wherein at least four openings are provided within one row, thereby increasing symmetry for each opening with respect to its optical axis.

6. (Previously Presented) The lens system according to claim 1, wherein the at least one excitation coil has a non-circular shape.

7. (Previously Presented) The lens system according to claim 1, wherein the at least one excitation coil has substantially the shape of a rectangle with rounded edges.

8. (Previously Presented) The lens system according to claim 1, further comprising at least two lens rows, each comprising an excitation coil; and at least two lens modules arranged next to each other to form a two-dimensional arrangement of openings.

9. (Previously Presented) The lens system according to claim 1, wherein the at least two lens modules are arranged to form a two-dimensional arrangement of at least four openings, and thereby sharing one excitation coil.

10. (Previously Presented) The lens system according to claim 1, wherein the openings for the charged particle beams have at least in one direction a distance with respect to each other of about 10 mm to about 90 mm.

11. (Previously Presented) The lens system according to claim 9, wherein each row of lens modules is terminated at its ends by a shielding plate.

12. (Previously Presented) The lens system according to claim 1, wherein each lens module is positioned in relation to an adjacent module by providing a gap of about 0.1 mm to 3mm.

13. (Previously Presented) The lens system according to claim 12, wherein the gap contains a non-magnetic material.

14. (Previously Presented) The lens system according to claim 1, wherein each lens module comprises magnetic flux shaping openings.

15. (Previously Presented) The lens system according to claim 1, wherein for each magnetic sub-lens, an electrostatic immersion lens is provided.

16. (Previously Presented) The lens system according to claim 15, wherein each electrostatic immersion lens comprises at least two electrodes.

17. (Currently Amended) A method for manufacturing a lens system for a plurality of charged particle beams having at least two lens modules, each comprising a first pole piece, a second pole piece and at least one opening for a charged particle beam, and at least one excitation coil providing a magnetic flux to the at least two lens modules, wherein each lens module constitutes a component, comprising:

manufacturing a plurality of lens modules, each comprising a first pole piece, a second pole piece and at least one opening for a charged particle beam; and

providing a common excitation coil for at least two leans modules.

18. (Previously Presented) The method according to claim 17, wherein each module is manufactured by first providing a cylindrical intermediate product and then flattening at least two sides of the cylindrical intermediate product.

19-20. (Cancelled)

21. (Previously Presented) A lens system for a plurality of charged particle beams, comprising:

an excitation coil providing a magnetic flux to a pole piece unit having a first pole piece, a second pole piece and at least two openings for charged particle beams;

wherein the two openings are arranged in one row, thereby forming a lens row; and

wherein the pole piece unit has an elongated shape.

22. (Previously Presented) The lens system according to claim 21, wherein the excitation coil has a non-circular shape.

23. (Previously Presented) The lens system according to claim 21, wherein the excitation coil has a rectangular shape with rounded edges.

24. (Previously Presented) The lens system according to claim 23, wherein the edges are rounded such that the sides of the rectangular shape form a semi-circle.

25. (Previously Presented) The lens system according to claim 21, wherein at least four openings are provided within one row, thereby increasing symmetry for each opening with respect to its optical axis.

26. (Previously Presented) The lens system according to claim 21, wherein one charged particle beam travels through each of the openings, thereby being focused in the lens field area.

27. (Previously Presented) The lens system according to claim 21, wherein the center of each opening provides an optical axis and whereby a lens field corresponding to each opening has substantially at least two planes of symmetry with respect to its optical axis.

28. (Previously Presented) The lens system according to claim 21, wherein at least two lens rows, each comprising an excitation coil, are arranged next to each other to form a two-dimensional arrangement of openings.

29. (Previously Presented) The lens system according to claim 21, wherein the openings for the charged particle beams have at least in one direction a distance with respect to each other of about 10 mm to 90 mm.

30. (Previously Presented) The lens system according to claim 21, wherein each lens row is terminated at its ends by a shielding plate.

31. (Previously Presented) The lens system according to claim 21, wherein the pole piece unit comprises magnetic flux shaping openings.

32. (Previously Presented) The lens system according to claim 21, wherein for each magnetic sub-lens, an electrostatic immersion lens is provided.

33. (Previously Presented) The lens system according to claim 32, wherein each electrostatic immersion lens comprises at least two electrodes.

34. (Previously Presented) A multiple charged particle beam device, comprising:

a charged particle beam source;

a detector for detecting secondary particles;

beam shaping means;

a housing for the charged particle beam column, wherein the housing can be evacuated;

at least one lens system comprising:

at least two lens modules, each comprising a first pole piece, a second pole piece and at least one opening for a charged particle beam; and

at least one excitation coil providing a magnetic flux to the at least two lens modules, wherein each lens module constitutes a component.